

PAT-NO: JP403219000A

DOCUMENT-IDENTIFIER: JP 03219000 A

TITLE: ETCHING METHOD AND WASHING METHOD FOR SILICON WAFER

PUBN-DATE: September 26, 1991

INVENTOR-INFORMATION:

NAME

OTSUKA, SUSUMU

SAKON, TADASHI

ATSUMI, JUN

ASSIGNEE-INFORMATION:

NAME

NIPPON STEEL CORP

COUNTRY

N/A

APPL-NO: JP02214290

APPL-DATE: August 15, 1990

INT-CL (IPC): C30B033/10, H01L021/304 , H01L021/308

US-CL-CURRENT: 438/694

ABSTRACT:

PURPOSE: To extremely decrease metallic contaminating materials contg. Fe by etching a silicon wafer with an etching soln. prepd. by adding a complexing agent which forms a complex compd. with the metallic contaminating materials to an aq. alkaline soln.

CONSTITUTION: The silicon wafer is etched or washed by using the etching liquid or washing liquid or the etching liquid or washing liquid added with the complexing agent (e.g.: citric acid) which forms the complex compd. with an extremely slight quantity of the metallic contaminating material, for example, Fe, existing on the surface of the silicon wafer at the time of etching or washing the silicon wafer by using the aq. alkaline soln., for example, an aq. KOH soln. and ammonia-aq. hydrogen peroxide soln. The degradation in the quality of the silicon wafer is averted in this way and the deterioration in the electrical characteristics when the silicon wafer is used for highly integrated devices is averted.